



Broadcast Use of 6 GHz

October 5, 2018

U-NII-6 (6425-6525 MHz) and U-NII-8 (6875-7125 MHz) Bands

Bands Authorized Mobile BAS Use

- 6425-6525 MHz – Nationwide
- 6875-7125 MHz – Many large urban markets
 - See WT Docket 10-153 Order, August 9, 2011, ¶¶20, 23
- Typical Power levels: 0.01 to 0.5 watts

Example Low-Power / Indoor Uses

- Camera-Back portable transmitters
- Wireless Microphones

Vislink Camera Back 6 GHz Transmitter



Temporary Fixed Link (§74.24)

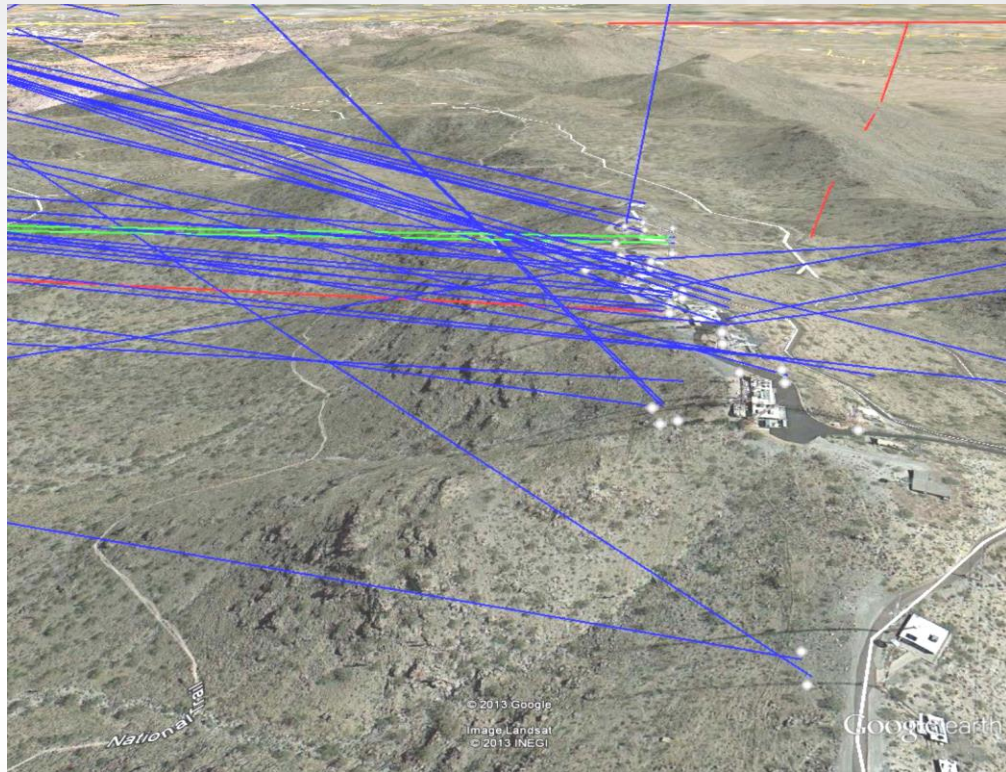


Broadcast Sites Have High RF “Visibility”

Empire State Building



South Mountain (Phoenix)



Database Approaches are Flawed or Unproven (Sensing Approaches also...)

- Significant concerns remain regarding accuracy of TVWS database.
- SAS system has not been deployed
- DFS at 5 GHz has resulted in hundreds of interference cases
 - Interference continues to this day
 - FCC has inadequate resources to investigate
- ESC was not designed to detect a wide variety of signal types that could exist anywhere

Reliance on RKF Study is Questionable

- Monte Carlo analysis inapplicable because it assumes continuous operation, while BAS use is intermittent.
- Use of average values for various parameters, ignores many common or worst case situations
- Indoor use in high-rise buildings ignored
- Wireless mic and Camera-back use cases ignored
- Assumed duty cycle of 0.44% indicates 225 times more users could coexist at peak periods; nothing prevents this
- Obvious blunders (+ and – signs mixed); Use of AAT rather than AGL or AMSL height
- Use of clutter is inappropriate because clutter is generally unknown (ITU-R P.452 recommend not using clutter in such situations)
- High-level, line-of-sight interference modes are far more common than low-level statistical averages buried in clutter
- Standard practice is to assume LoS unless there is a defined obstacle
- Study proponents refused to allow RKF to explain their work

- U-NII-6 and -8 operation in non-residential settings raises unique concerns
- If allowed, there must be a means of immediate shut-down when BAS operations occur
 - At a minimum, operation must have geolocation capability (even if indoors) and
 - Must be tied to a database system with near-constant connectivity